

## CHAPTER 1

# Introduction to the ADHD Rating Scales

Attention-deficit/hyperactivity disorder (ADHD) is a diagnostic category used to describe individuals who display developmentally inappropriate levels of inattention, impulsivity, and/or motor activity (American Psychiatric Association, 2013). Epidemiological studies have found that ADHD affects approximately 5.9–7.1% of children and adolescents (Willcutt, 2012). In the United States, parents report that around 11% of children have received an ADHD diagnosis from community practitioners (Visser et al., 2014). Given the prevalence, chronicity, and myriad difficulties associated with this disorder, it is important for clinicians to use psychometrically sound instruments when evaluating children and adolescents suspected of having ADHD.

### Purpose of the Manual

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The purpose of this manual is to describe the ADHD Rating Scale–5, Home Version, and the ADHD Rating Scale–5, School Version. With the permission of the American Psychiatric Association, both rating scales are based on the diagnostic criteria for ADHD as described in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). Information is presented about the development and standardization of these scales, collection of normative data, factor structure, psychometric properties (i.e., reliability and validity), as well as the interpretive uses of these scales in clinical and school settings.

## Background and Description of the ADHD Rating Scale-5

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Over the past three decades, the diagnostic criteria for ADHD have undergone several changes that have significantly altered the clinical assessment of this disorder. Research over the last 30 years has consistently demonstrated that ADHD symptoms can be divided into two separate factors of inattention and hyperactivity-impulsivity (e.g., Bauermeister et al., 1995; DuPaul, Power, Anastopoulos, & Reid, 1998). Based, in part, on these findings, DSM-5 provides diagnostic criteria organized into two dimensions of inattention and hyperactivity-impulsivity, each of which consists of nine symptoms. Recent research has also demonstrated that there was a need for slightly different symptom descriptors for children and adolescents. In particular, symptom descriptions that are developmentally relevant for adolescents and adults were added to the DSM-5 criteria for ADHD. Thus the ADHD Rating Scale-5 has incorporated the DSM-5 changes by creating separate forms for children and adolescents, with the adolescent form providing developmentally relevant examples of problem behavior based on DSM-5 descriptions. Finally, recent research stressed that it is crucial that symptoms result in functional impairment in common home and/or school situations. In fact, the DSM-5 requires symptoms to be associated with impairment in at least one functional area (e.g., academic performance, social relationships) for an ADHD diagnosis to be warranted. For this reason, the ADHD Rating Scale-5 has incorporated two impairment scales keyed to the inattention and hyperactivity-impulsivity dimensions. This allows users to assess the extent to which ADHD-related problems adversely affect the home and/or school functioning of children and adolescents.

An evaluation of ADHD typically involves multiple components that may include diagnostic interviews with the child and his or her parents and teachers, behavior rating scales completed by parents and teachers, direct observations of school behavior, and clinic-based testing (Barkley, 2015; DuPaul & Stoner, 2014). Although many behavior questionnaires are available for use in such evaluations, very few of the currently available instruments specifically include items directly adapted from the DSM-5 criteria for ADHD. Thus our purpose in creating the ADHD Rating Scale-5 was to provide clinicians with a method to obtain parent and teacher ratings regarding the frequency of each of the symptoms of ADHD based on DSM-5 criteria.

Eighteen scale items were written to reflect DSM-5 criteria as closely as possible while maintaining brevity. The primary change made to each symptom was to omit the word “often” from the symptomatic description because respondents are asked to indicate the frequency of each symptom on a 4-point Likert scale (“never or rarely,” “sometimes,” “often,” or “very often”). Adapted descriptions of ADHD symptoms, based on wording used in DSM-5, are included for the adolescent version. Parents are asked to determine symptomatic frequency that best describes the child’s or adolescent’s home behavior over the previous 6 months (in accordance with DSM-5 guidelines), and teachers rate the frequency that best describes the student’s school behavior over the previous 6 months or since the beginning of the school year. English and Spanish versions of the ADHD Rating Scale-5, Home Version: Child and Home Version: Adolescent are presented in the

Appendix, as is the School Version of the ADHD Rating Scale–5 for children and adolescents (English only).

## Administration and Scoring

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All versions of the ADHD Rating Scale–5 are designed to be completed independently by a child’s parent or teacher. The respondent is instructed to provide demographic information (i.e., name of child, age, grade, and name of respondent) and to circle the number for each item that best describes the child’s or adolescent’s home (or school) behavior over the previous 6 months (or since the beginning of the school year if the teacher has known the student for less than 6 months). If the respondent skips any item, he or she should be asked to provide a rating for this item. If the respondent indicates a lack of opportunity to observe the behavior and skips an item, then this item is not included in the scoring of the scale. If three or more items are omitted, the clinician should use extreme caution in interpreting the scale for screening, diagnostic, or treatment evaluation purposes.

The home and school versions of the ADHD Rating Scale–5 consist of two symptom subscales: Inattention (nine items) and Hyperactivity–Impulsivity (nine items). These subscales are empirically derived (see Chapter 2) and conform to the two symptomatic dimensions described in the DSM-5. Thus three symptom scores (Inattention, Hyperactivity–Impulsivity, and total) are derived from each version. The Inattention subscale raw score is computed by summing the item scores for Items 1–9. The Hyperactivity–Impulsivity subscale raw score is computed by summing the item scores for Items 10–18. The Total Scale raw score is obtained by adding the Inattention and Hyperactivity–Impulsivity subscale raw scores.

The ADHD Rating Scale–5 was designed to include items reflecting six domains of impairment that are common among children with ADHD. One domain assessed by the ADHD Rating Scale–5 is relationships with significant others (family members for the home version and teachers for the school version). A second domain is peer relationships, which are frequently impaired among children with ADHD (Barkley, 2015). A third domain is academic functioning, which is perhaps the most common impairment among children with ADHD (DuPaul & Stoner, 2014). A fourth domain is behavioral functioning; impairment due to disruptive behavior has been universally recognized and is extremely common among children with the hyperactive–impulsive and combined presentations of ADHD. A fifth domain is homework functioning, which is commonly impaired among children with ADHD and is associated with academic problems, emotional difficulties, and disruptive behavior (Power, Werba, Watkins, Angelucci, & Eiraldi, 2006). A sixth domain is self-esteem, which is often impaired among children with ADHD due to the disproportionate amount of punitive feedback these children receive from adults and peers (Barkley, 2015).

When using the ADHD Rating Scale–5, respondents complete each set of six impairment items twice, first after rating the inattention symptom items and again after rating the hyperactivity–impulsivity items. They are asked, “How much do the above behaviors cause problems for your child (this student)?” Items are rated on a 4-point scale (no, minor, moderate, severe problem).

Raw scores are converted to percentile scores by using the appropriate scoring profile (presented in the Appendix) based on the child's gender and age. The raw score for a particular gender, age, and scale is circled in the body of the profile. The corresponding percentile score is displayed in the extreme right- and left-hand columns of the profile. Figure 1.1 displays a sample profile for symptom scoring the ADHD Rating Scale-5, Home Version, for a 7-year-old boy. This boy's mother provided ratings resulting in the following raw scores and percentiles: Hyperactivity-Impulsivity = 17 (93rd percentile), Inattention = 15 (91st percentile), and Total = 32 (94th percentile). Note that when a raw score is associated with more than one percentile score, the clinician should report the *lowest* of the possible percentile scores. Figure 1.2 displays a sample profile for scoring impairments using the ADHD Rating Scale-5, Home Version, for a 7-year-old boy. Note that a child's score on each impairment dimension reflects the *higher* of the two ratings on items pertaining to symptom-related impairment for that dimension. For example, if the child received a rating of 1 for homework impairment related to inattention and a rating of 2 for homework impairment related to hyperactivity-impulsivity, the child's score on the homework impairment dimension would be a 2. In this case, the child received the following ratings from his mother: Family Relations = 0 (65th percentile), Peer Relations = 2 (98th percentile), Homework = 1 (90th percentile), Academics = 1 (90th percentile), Behavior = 3 (99.5th+ percentile), and Self-Esteem = 1 (95th percentile).

In Chapter 2, we describe the factor analyses used to derive the subscales of the ADHD Rating Scale-5. Descriptions of the normative samples, as well as gender, age, and ethnic differences in scale scores, are given in Chapter 3. The reliability and validity of various versions of the ADHD Rating Scale-5 are detailed in Chapter 4. Chapters 5 and 6 provide clinicians with guidelines for the interpretation and use of the scales for diagnostic and treatment evaluation purposes.

Child's name: Glenn BrownDate: June 9, 2015 Age: 7

%ile	HI 5-7	HI 8-10	HI 11-13	HI 14-17	IA 5-7	IA 8-10	IA 11-13	IA 14-17	Total 5-7	Total 8-10	Total 11-13	Total 14-17	%ile
99+	27	27	26	21	27	27	27	27	50	53	52	47	99+
99	24	26	22	16	25	27	27	26	45	49	47	39	99
98	19	20	19	15	23	25	27	25	41	44	43	37	98
97	18	20	18	13	22	21	25	21	38	38	38	34	97
96	17	19	17	12	21	20	22	20	38	36	36	30	96
95	17	18	15	10	18	17	21	19	35	35	34	27	95
94	17	17	14	9	17	16	21	18	32	33	31	26	94
93	17	16	13	9	17	16	19	18	31	31	30	25	93
92	16	16	12	9	16	16	18	17	29	30	28	25	92
91	15	15	11	8	15	15	18	16	27	29	26	22	91
90	15	14	10	8	14	14	17	16	27	28	25	21	90
89	13	13	10	7	14	12	16	15	26	25	24	20	89
88	13	11	9	7	12	12	15	14	25	24	23	19	88
87	12	10	9	6	11	12	15	13	24	22	22	18	87
86	12	10	9	5	11	11	15	12	22	21	22	18	86
85	10	9	9	5	10	11	14	11	20	19	21	17	85
84	10	9	9	5	10	11	13	11	20	19	21	16	84
80	9	8	7	4	9	9	12	10	18	17	19	14	80
75	8	7	6	3	9	9	10	9	16	14	17	11	75
50	5	3	2	1	5	4	6	4	10	8	8	5	50
25	2	1	0	0	2	2	1	1	4	3	2	2	25
10	0	0	0	0	0	0	0	0	0	1	0	0	10
1	0	0	0	0	0	0	0	0	0	0	0	0	1

**FIGURE 1.1.** Sample symptom scoring profile on the ADHD Rating Scale-5, Home Version, for a 7-year-old boy. HI, Hyperactivity-Impulsivity; IA, Inattention.

Child's name: Glenn Brown Date: June 6, 2015 Age: 7

%ile	Family Relations			Peer Relations			Homework			Academics			Behavior			Self-Esteem					
	5-7	8-10	11-13	14-17	5-7	8-10	11-13	14-17	5-7	8-10	11-13	14-17	5-7	8-10	11-13	14-17	5-7	8-10	11-13	14-17	
99.5+	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2-3	3	99.5+
99			2				2									2			2		99
98	2	2		2			2				2						2				98
95				1		1	2		2	2	2	2				1				1	95
93		1	1		1	1				1								1	1		93
90	1							1													90
85											1	1									85
80																					80
75																					75
70		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
65			0														0				65
60								0													60
55																					55
50																					50

FIGURE 1.2. Sample impairment scoring profile on the ADHD Rating Scale-5, Home Version, for a 7-year-old boy.